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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,129	11/07/2000	David N. Spiegel	END920000101US1	1094

45092 7590 04/17/2006

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EXAMINER

RUTTEN, JAMES D

ART UNIT PAPER NUMBER

2192

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/708,129	Applicant(s) SPIEGEL, DAVID N.	
	Examiner J. Derek Rutten	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to Applicant's amendment dated 1/9/2006, responding to the 9/8/2005 Office action provided in the rejection of claims 1-19, wherein claims 1 and 9 have been amended. Claims 1-19 remain pending in the application and have been fully considered by the examiner.

Response to Arguments

2. On page 11 of the response filed 1/9/06, Applicant responds to the rejection under 35 U.S.C. § 112, 1st paragraph regarding the use of the phrase "all known second maintenance items", by attempting to differentiate between second and third maintenance items according to cited passages in the originally filed specification. However, the cited portions of the specification (i.e. page 9 lines 1-2 and page 8 lines 14-15) do not appear to provide express definitions of these terms, but are instead directed to describing "a list of maintenance items" and "a database of second maintenance items", respectively. As such, these definitions do not provide any limiting effect on the maintenance items themselves, but are directed to descriptions of data structures ("list" and "database") that use such maintenance items. Nonetheless, even if the second and third maintenance items were somehow distinct, it is not clear from Applicant's arguments how this would support the term "all known" as suggested by the Applicant. This argument is not persuasive.

3. On pages 12 and 13, Applicant essentially argues that the references do not teach a database of "all known" maintenance items. However, this limitation is not supported by the

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claims, and is not defined or described in the originally filed specification. Furthermore, Stupek discloses a database having information regarding each upgrade package. See column 3 lines 44-52:

In addition to the resource upgrades 7, the CD-ROM contains an upgrade database 9, which stores information about each of the upgrade packages 6 (e.g., name and location of the package on the CD-ROM, description of the upgrades, and instructions for installation of the package to the server), and the individual upgrade objects 8 within each package 6. If the upgrades 7 are provided by an on-line service, the upgrade database 9 will also be provided by the service.

Thus, if the database contains information about each upgrade package, then all known second maintenance items are covered in the database. Therefore, this argument is not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "database of second maintenance items not limited to data regarding each upgrade package" – see page 12 of the response) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. On pages 13 and 14, Applicant argues that Stupek does not disclose searching "for records that have the dependency information". However, Stupek discloses notifying users of dependency information. See column 7 lines 33-35. Since notification of dependency occurs, a search for dependency information, while not expressly disclosed, is inherent since notification could not occur without a search for the information. Therefore, Applicant's argument is not persuasive.

5. On pages 14 and 15, Applicant essentially argues that the Taylor reference does not teach adding packages to an original list of items. However, as submitted in the previous Office Action, Stupek discloses a first list, and the Taylor reference teaches adding dependency

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information to a list as recited in the previous Office action on page 10. Further, Taylor teaches a preexisting action list, i.e. first list, to which dependency information is added. See Taylor column 5 lines 29-31:

If there is an action list, add module 112 adds the name of the dependent package to the action list.

Thus, Taylor clearly teaches adding dependency information to an initial first list.

6. At the bottom of page 15, Applicant essentially argues that the Stupek reference does not disclose “subsequent” ordering, receiving, and applying. However, as submitted previously, broad interpretation of these limitations read on Stupek column 5 lines 48-63 as cited on page 9 in the prior Office Action:

When the job is ready to be installed to the target server, the server upgrader connects with the server...and then sends the job...to a staging area. The staging area may...be anywhere else in the network capable of handling the deposit and retrieval of upgrade files....the agent executes the instructions in the control file **thereby installing the packages from the package directories 71 to the target network resources 3.**

Execution of the instructions in the control file could be broadly interpreted as ordering and retrieving the upgrade files from the package directories in order to apply them to the system. As described in the passage, this necessarily occurs at the end of the process since all packages must be known before they can be installed.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 1, 9, 17, 18, and 19 all recite the phrase "...database of *all* known second maintenance items...", e.g. line 6 of claim 1. While inherently supporting a database of *some* known second maintenance items (page 8 lines 13-22), the originally filed specification does not expressly support a database containing *all* known maintenance items.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Independent claims 1, 9, 17, 18, and 19 all recite the phrase "...database of *all* known second maintenance items...", e.g. line 6 of claim 1. The scope of the word "all" is unclear, since this could be interpreted as referring to all known maintenance items as related to the currently installed system, or it could refer to every single maintenance item ever presented as a maintenance item since the inception of computing. The scope of the word could not be determined from the language of the claim, and the originally filed specification does not provide further clarification.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 3-9, and 11-18 rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent No. 5,960,189 to Stupek et al. (hereinafter "Stupek") in view of prior art of record U.S. Patent 5,721,824 to Taylor (hereinafter "Taylor").

As per claim 1, Stupek discloses:

A method of maintaining software on a computer system (See Abstract)

comprising the steps of:

Bringing up first and second host sessions on a computer system (FIG. 1 elements 1 and 2);

Starting in said first host session, a software recording application having data on existing first maintenance items that have been previously applied to said computer system See figure 1 reference 5 "Management Information Base", column 3 lines 22-30:

A management information base (MIB) within the server maintains basic descriptive information about each of the resources available on the server.
Resources that are currently available and exist on the server, inherently must have been previously applied, otherwise they would not be available.

Starting in said second host session, a database application having a database of all known second maintenance items including prerequisite items and corequisite items corresponding to each of said known second maintenance items See figure 1 reference 9 "Upgrade Database", column 3 lines 44-column 7 lines 8-10:

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The database also contains information regarding the dependencies between the package and other upgrade objects or packages...

Maintenance items must inherently be known if information regarding them is stored in a database. As a database is a collection of knowledge, it would not exist without knowledge of its members. Stupek also discloses storing information for all known updates - see column 3 lines 44-52:

In addition to the resource upgrades 7, the CD-ROM contains an upgrade database 9, which stores information about **each of the upgrade packages 6** (e.g., name and location of the package on the CD-ROM, description of the upgrades, and instructions for installation of the package to the server), and the individual upgrade objects 8 within each package 6. If the upgrades 7 are provided by an on-line service, the upgrade database 9 will also be provided by the service.

Activating a maintenance application on said computer system (figure 1 reference 11 “Upgrade Advisor”);

Entering a first list of new third maintenance items in said maintenance application See figure 1 reference 7 “Resource Upgrades”, column 3 lines 31-43:

Upgrades to the network resources are provided to a server manager by a distribution medium (not shown), such as a CD-ROM. The upgrades 7 may also be provided by an on-line service (not shown), such as a bulletin board service administered by a manufacturer of network resources.

Upgrades inherently provide a new version of a product, otherwise they might be called a “downgrade”, or “rollback”. Also see column 3 line 57 – column 4 line 5.);

Searching said database of known second maintenance items for records matching each of said new third maintenance items to find records that have said prerequisite items and corequisite items, See column 4 lines 20-27:

The upgrade advisor then **retrieves upgrade information from the upgrade database** and performs two types of comparisons: a) whether or not a particular upgrade package corresponds to a resource on the server, and b) whether or not the version number of the upgrade package matches the version number of the corresponding network resource (i.e, whether or not the upgrade package represents a true upgrade for the existing network resource).

Also column 7 lines 6-35, especially lines 29-33:

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Therefore, the dependency information in the Package database 25 describes not only the dependencies between packages on the CD, but also all dependencies between an upgrade package and any upgrade not available on the CD.

Also column 4 lines 6-9:

When the analysis is complete, the upgrade advisor 11 presents a report and/or graphical display to the user. This output is in the form of upgrade recommendations, each supported by an explanation of the reasons for upgrade.

The first list is analyzed by the upgrade advisor and modified according to the current maintenance needs, producing a report, or list, of prerequisites and corequisites.);

Also see column 7 lines 33-35. Since notification of dependency occurs, a search for dependency information, while not expressly disclosed, is inherent since notification could not occur without a search for the information.

thereafter determining from said software recording application which items on said first list have already been received, and adding those items not received to an order list See column 4 lines 20-27 as cited above describes the determination of items that have already been received; also column 4 lines 45-48:

When the upgrade advisor 11 and/or the user have selected 100 the network resources 3 that need to be upgraded, an upgrade installer 17 oversees the automatic installation of the packages to the server.

A determination of which items have already been received is inherent in the selection of "network resources that need to be upgraded". If a resource does not need to be upgraded, then it must have already been received. Selection of resources is impossible without determination. Also column 5 lines 41-45

In the server upgrader 22, several upgrade packages 7 and the corresponding installation instructions 20 are grouped 108 into a "job" 18. Within each job 18, the installation instructions for every package are included in a control file 18a.

Grouping packages into a job is considered adding to an order list.); and

thereafter ordering, receiving, and applying said items on said order list See column 4 lines 45-48 as cited above in addition to column 4 lines 48-53:

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At the outset, the appropriate upgrade packages 7 are retrieved 102 from the distribution medium (or the on-line service) and supplied 106 to a server upgrader 22 located in the upgrade installer 17. Installation instructions 20 are retrieved 104 from the database 9 and are supplied 106 to the server upgrader 22.

Also column 5 lines 48-63:

When the job is ready to be installed to the target server, the server upgrader connects with the server...and then sends the job...to a staging area. The staging area may...be anywhere else in the network capable of handling the deposit and retrieval of upgrade files....the agent executes the instructions in the control file thereby installing the packages from the package directories 71 to the target network resources 3.

Stupek column 4 lines 6-9 discloses presenting a list of upgrades to a user:

When the analysis is complete, the upgrade advisor 11 presents a report and/or graphical display to the user.

Stupek takes an original list of available upgrades and analyses it to determine the set of necessary upgrades. A list is then generated to display the results of the analysis. Stupek further describes automatic installation of the displayed list using a Package database that describes any dependencies related to the package in column 7 lines 6-15:

To enable automatic installation of the package, the database contains the package script 25g (the installation instructions for the package). The database also contains information regarding the dependencies between the package and other upgrade objects or packages: child dependencies 25h are the upgrade objects associated with a package; sibling dependencies 25j are the packages upon which a package depends; and parent dependencies 25i are the packages or upgrade objects which together constitute a larger package.

However, Stupek does not expressly disclose “adding said corresponding prerequisite items and corequisite items to said first list.” However, in an analogous environment,

Taylor teaches adding dependency information to a list in column 2 lines 20-23:

If the dominant package has a dependent package not already installed, the method constructs a trailer script process and an action list. The action list has action entries identifying dependent packages not previously installed.

Also see Taylor column 5 lines 29-31:

If there is an action list, add module 112 adds the name of the dependent package to the action list.

This passage teaches that Taylor adds a package to a preexisting first list.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Taylor's teaching of adding dependency packages to a list with Stupek's first list. One of ordinary skill would have been motivated to install a multi-package distribution pack with package dependencies on a target system in a single installation operation (Taylor column 1 lines 58-60).

As per claim 3, the above rejection of claim 1 is incorporated. Stupek further discloses the use of an operating system with the computer system (column 1 line 17).

As per claim 4, the above rejection of claim 3 is incorporated. Stupek further discloses the use of a network with the computer system (column 1 line 13).

As per claim 5, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of keeping track of what software has been installed or uninstalled (column 6 lines 45-47).

As per claim 7, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of storing information relating to program updates in a file (column 6 lines 43-45).

As per claim 8, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of updating software on the computer system (column 5 lines 48-63).

As per claim 9, Stupek discloses:

A system for maintaining software on a computer system (FIG. 1) comprising:

a maintenance application having a first list of third maintenance items wherein the first list comprises a list of maintenance items needed to be applied to said computer system (figure 1 reference 11 “Upgrade Advisor”; figure 1 reference 7 “Resource Upgrades”, column 3 lines 31-43:

Upgrades to the network resources are provided to a server manager by a distribution medium...

Also column 3 line 57 – column 4 line 7:

When the upgrades 7 become available to the network (e.g., by inserting the CD-ROM into the server manager drive, or by logging into the on-line service), an upgrade advisor 11 in the upgrade device 10 automatically analyzes each network resource 3 currently on the server 1 to determine the availability and **necessity of the corresponding upgrade 7**. When the analysis is complete, **the upgrade advisor 11 presents a report** and/or graphical display to the user.

All other limitations have been addressed in the above rejection of claim 1.

As per claims 11-13, 15 and 16, the above rejection of claim 9 is incorporated.

All further limitations have been addressed in the above rejections of claims 3-5, 7, and 8, respectively.

As per claim 17, all limitations have been addressed in the above rejections of claims 1 and 9.

As per claim 18, Stupek discloses a computer program product (column 3 lines 31-33). Stupek further discloses a computer readable medium and program instruction means (column 11 line 9 – column 14 line 33). All further limitations have been addressed in the above rejection of claim 1.

14. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek et al as applied to claims 1 and 9, respectively, above, and further in view of “Y2K Compliance and the Distributed Enterprise” by Gowan et al.

As per claim 2, Stupek does not expressly disclose software maintenance on a mainframe.

However, in an analogous environment, Gowan et al. teaches the benefits of upgrading a mainframe computer system (page 68, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Stupek’s software maintenance system with Gowan’s concept of upgrading a mainframe computer in order to facilitate a swift and automated upgrade process. This is desirable since mainframe computers serve a large number of users, and having a swift and automated upgrade process ensures the availability of correct and efficient software.

As per claim 10, all further limitations have been addressed in the above rejection of claim 2.

15. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek and Taylor as applied above to the rejections of claims 1 and 9, further in view of “IMS/ESA Sysplex Data Sharing: An Implementation Case Study” by Boyle et al. (hereinafter “Boyle”).

As per claim 6, the above rejection of claim 1 is incorporated. Stupek further discloses the use of a database application through the use of the “server database” (column 4 lines 14-16). Stupek does not expressly disclose the use of IBM ServiceLink. However, in an analogous environment, Boyle teaches that ServiceLink can be used in software maintenance (top of page 32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boyle’s teaching of ServiceLink with Stupek’s database. One of ordinary skill would have been motivated to provide early opportunity to review software maintenance issues (Boyle: 2nd paragraph of page 32).

In regard to claim 14, the above rejection of claim 9 is incorporated. All further limitations have been addressed in the above rejection of claim 6.

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16. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek and Taylor as applied to claim 1 above, further in view of IBM SMP/E as described on page 8 of the originally filed specification (hereinafter "SMP/E").

In regard to claim 19, the above rejection of claim 1 is incorporated. Stupek does not expressly disclose: *recording what software has been taken off the computer system, and recording what software has been cloned*. However, in an analogous environment, SMP/E teaches a software recording application that records what software has been taken off a computers system, and what software has been cloned. See page 8 lines 5-9:

One example of such a recording application is a program provided by IBM Corp. known as SMP/E. This program can record what software has been put on, track such software, record what software has been taken off, and record what software has been cloned, all on an OS/390 architecture system.

As described in the specification, SMP/E is a "known" application that provides these capabilities. While supporting documentation of the SMP/E application has not been previously supplied, this passage clearly describes its use in terms of prior art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the recording abilities of SMP/E with the Stupek's "MIB". One of ordinary skill would have been motivated to supply accurate information regarding available resources (see Stupek column 3 lines 28-30). All further limitations have been addressed in the above rejection of claim 1.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-Th 6:00-6:30, F 6:00-10:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



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